## The Small Hospital's Role in Poliomyelitis

EDWARD B. SHAW, M.D. and H. E. THELANDER, M.D., San Francisco

SPORADIC POLIOMYELITIS is to be expected in all communities from time to time. Some cases will completely escape detection, many will be mild and equivocal, and a few may present problems which might tax the facilities of the best equipped centers.

Epidemics of this disease are completely unpredictable and an area which has enjoyed relative freedom for many years may be the site of this year's epidemic. Small communities sometimes encounter a case incidence which would be overwhelming even to a well prepared urban center.

The problem for the smaller hospital is whether every patient in whom the diagnosis is even suspected should immediately be transferred to a center for the care of this disease or, conversely, standby facilities should be provided for any eventuality in the management of the individual cases or of an epidemic situation.

The former course involves an impatient avoidance of responsibility for the diagnosis of the disease and the immediate care of patients. Especially will this course put upon major treatment centers an impossible load, including patients with all manner of conditions which may be confused with poliomyelitis together with patients who have dubious or extremely mild cases and for whom perfectly adequate treatment can be afforded with minimal facilities.

Protection of the community and the ultimate welfare of the patient do not demand that the diagnosis always be established at the earliest possible moment. (As regards the welfare of the patient, this situation would be changed, of course, by the discovery of a specific method of treatment.) There need be no great risk to the institution in the acceptance of patients suspected of having poliomyelitis, provided reasonably well defined precautions are observed. Along with suspected cases there are probably others with less convincing symptomatology in which contact communicability is equally great. In general, communicability is low and the hospital need not be motivated by local hysteria to refuse all suspects.

The latter course—to attempt to provide complete care in every small community—is wasteful of time and effort. It may be relatively easy for the hospital to finance the purchase of hot pack machines, respirators of one sort or another, and all manner of mechanical equipment; but it is not easy at all times

Part of the Symposium on Poliomyelitis presented before the Section on Public Health at the 81st Annual Session of the California Medical Association, Los Angeles, April 27-30, 1952.

• Medical skills should be developed by the staffs of smaller hospitals for the differential study of patients with symptoms resembling those of poliomyelitis in order to provide the rudiments of care for the occasional patient with mild poliomyelitis, to recognize the indications which point to the necessity of superior technical assistance, and to decide when it is appropriate to move patients to better equipped centers.

The impetuous acquisition of mechanical aids for the treatment of special problems will be effective in small communities only to the extent that this equipment is kept serviceable and is operated by persons of sufficient skill. Epidemic situations in a small community can be met only by mobilization of facilities under adequate direction and by integration of care with that provided by larger treatment centers.

to provide adequately trained personnel for the operation of these devices. It should be an absolute rule that mechanical equipment ought never to exceed the skill and availability of those who are to operate it. There is the further necessity that repair and servicing of apparatus be constantly maintained. Elaborate preparation for every eventuality in patient care is an uneconomic approach to the problems of the small institution.

The prime requirement is that there should be available a nucleus of physicians with sufficient interest, training, and experience to be able to carry out clinical and laboratory studies on patients suspected of the disease, in order to arrive at a working diagnosis and a plan of management. There are ample opportunities provided by the National Foundation for Infantile Paralysis and by state boards of health for those who are interested to get enough training to make this possible, and public concern is such as to stimulate this effort.

Patients in whom the diagnosis of poliomyelitis is suspected may be divided into groups:

- 1. Those in whom an alternative diagnosis and an appropriate plan of care may quickly be determined upon.
- 2. Those who have equine encephalomyelitis and similar diseases of the central nervous system which may be distinguished from poliomyelitis only by

careful observation but in which the symptomatology is not sufficiently urgent to impose the need for more than careful study in arriving at a diagnosis and a plan of management.

- 3. Those who have mild poliomyelitis in which the diagnosis may be difficult to establish but in which simple measures may be entirely adequate and in which the necessity for more complicated treatment may be anticipated by extremely watchful observation.
- 4. Those in whom the diagnosis is readily established and with regard to whom the clinician must determine whether local facilities are adequate or transfer to a treatment center with more extensive equipment and personnel is necessary. Such a decision is complicated by an opinion, frequently expressed, that in a large proportion of cases patients with manifest poliomyelitis had best not be disturbed and should not be traumatized by transportation over great distances. This decision involves a calculated risk in which all the factors serving the ultimate safety of the patient should be carefully considered. There are certainly cases in which the probable termination of the disease is death and in which only the maximum of skill will provide optimal chances for recovery of the patient.

In very few cases in which the clinical diagnosis can be established with certainty will the patient completely escape paralytic sequelae, and in many such instances the end result will be greatly affected by the quality of care. Details of treatment need not always be intricately contrived but must certainly include adequate rest, the use of measures to alleviate pain and muscle spasm, the avoidance of overstretching or contracture of involved musculature,

judicious manipulation to overcome muscle spasm, and the guarded resumption of activity and ambulation

The most elaborate measures may not prevent profound disability in some patients, but even patients with mild forms of the disease are not well served by inexpert and desultory care. In mild cases meticulous attention to detail may make the difference between complete functional recovery and crippling after-effects.

The medical care of patients with poliomyelitis, wherever afforded, must meet the problems of the individual patient — problems which may involve almost every area of medical skill. It is possible, although not without some difficulty, to compensate for the lack of facilities of personnel and equipment by infinite pains in medical attendance of each patient.

That there should be some mistakes in diagnosis, prognosis, and in management is implicit with the nature of the disease. Even clinicians of considerable experience may make such errors. A physician who assumes responsibility for the care of a patient must be alert to the danger signals which may indicate the necessity of securing technical assistance beyond his own accomplishments.

When the number of cases is greatly increased the burden assumed by the hospital will depend upon the amount of medical skill that can be mobilized to meet these needs. It is incumbent upon those concerned with medical problems to direct and to expand nursing care, physical therapy and other ancillary services to meet the case load which may be assumed.

3641 California Street.